

<b>Notice of Allowability</b>	<b>Application No.</b>	<b>Applicant(s)</b>	
	10/017,156	FUJIMOTO ET AL.	
	Examiner Paul Huber	Art Unit 2653	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1.  This communication is responsive to the response filed November 1, 2004.
2.  The allowed claim(s) is/are 11-41 (renumbered as claims 1-31, respectively).
3.  The drawings filed on 14 December 2001 and 26 March 2002 are accepted by the Examiner.
4.  Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
  - a)  All    b)  Some\*    c)  None    of the:
    1.  Certified copies of the priority documents have been received.
    2.  Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
    3.  Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

\* Certified copies not received: \_\_\_\_\_.

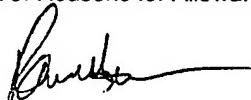
Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.  
**THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.**

5.  A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
6.  CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
  - (a)  including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
    - 1)  hereto or 2)  to Paper No./Mail Date \_\_\_\_\_.
  - (b)  including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date \_\_\_\_\_.

Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
7.  DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

#### Attachment(s)

1.  Notice of References Cited (PTO-892)
2.  Notice of Draftsperson's Patent Drawing Review (PTO-948)
3.  Information Disclosure Statements (PTO-1449 or PTO/SB/08),  
Paper No./Mail Date 050702
4.  Examiner's Comment Regarding Requirement for Deposit  
of Biological Material
5.  Notice of Informal Patent Application (PTO-152)
6.  Interview Summary (PTO-413),  
Paper No./Mail Date \_\_\_\_\_.
7.  Examiner's Amendment/Comment
8.  Examiner's Statement of Reasons for Allowance
9.  Other \_\_\_\_\_.



PAUL W. HUBER  
PRIMARY EXAMINER

**EXAMINER'S AMENDMENT AND REASONS FOR ALLOWANCE**

Applicant's election of Species I, figures 2, 4 and 5, claims 11-41 readable thereon, in the reply filed on November 1, 2004 is acknowledged. The applicant elected with traverse stating that there should be only two distinct species in the application, but did not explain why the eight species identified by the examiner by their corresponding figures are not distinct species. Because applicant did not distinctly and specifically point out the supposed errors in the restriction requirement, the election has been treated as an election without traverse (MPEP § 818.03(a)).

An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it MUST be submitted no later than the payment of the issue fee.

Claims 1-10 and 42-46 were canceled.

In claim 21, line 3; "reproducing" was changed to -- recording --.

In claim 22, line 1; "Claim 22," was changed to -- Claim 21, --.

In claim 26, line 3; "reproducing" was changed to -- recording --.

In claim 37, line 3; "reproducing" was changed to -- recording --.

In claim 39, line 1; "recoding" was changed to -- recording --.

Claims 1-10 and 42-46 were canceled as being claims non-elected without traverse for the reasons above.

Claims 21, 22, 26, 37 and 39 were amended in order to correct typographical errors.

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. The references cited on the PTO-892 each disclose a data storage apparatus including a SAM calculation circuit.

The following is an examiner's statement of reasons for allowance: the prior art of record considered as a whole fails to teach or suggest either:

- 1) a reproduced signal evaluation apparatus or method for evaluating a signal reproduced from a recording medium on which data modulated by a modulation code having a minimum run of one or more is stored, the reproduced signal evaluation apparatus or method comprising: a binary data detecting means or step for detecting binary data after decoding, by applying maximum likelihood decoding, the signal reproduced from the recording medium on which data modulated by the modulation code having the minimum run of one or more is stored; a SAM value computing means or step for computing a SAM value based on a detection result of the binary data detecting

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means or step, wherein SAM means Sequenced Amplitude Margin; and a reproduced signal evaluation means or step for selecting from SAM values computed by the SAM computing means or step, the SAM values being within a predetermined range of values, and evaluating the reproduced signal by statistically processing the selected SAM values; or

2) a reproduced signal evaluation apparatus or method for evaluating a signal reproduced from a recording medium on which data modulated by a modulation code having a minimum run of one or more is stored, the reproduced signal evaluation apparatus or method comprising: a binary data detecting means or step for detecting binary data after decoding, by applying maximum likelihood decoding, the signal reproduced from the recording medium on which data modulated by the modulation code having the minimum run of one or more is stored; a SAM value computing means or step for computing a SAM value based on a detection result of the binary data detecting means or step, wherein SAM means Sequenced Amplitude Margin; and a reproduced signal evaluation means or step for performing pattern matching against a pattern of data array obtained from the binary data detected by the binary data detecting means or step, selecting a SAM value for the pattern having a minimum SAM if a reproduced wave form is ideal, and evaluating the reproduced signal by applying a statistical process to the selected SAM. (bold language emphasized)

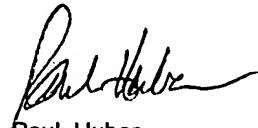
Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Paul Huber whose telephone number is 571-272-7588. The examiner can normally be reached on Compressed Schedule, every Friday off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, William Korzuch can be reached on 571-272-7589. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Paul Huber  
Primary Examiner  
Art Unit 2653

pwh  
April 4, 2005